Got a cheap cell phone at work? **At some companies, where employees get an allowance to buy their own tech gear, you'd have only yourself to blame.** PAGE 48

COMPUTERWORLD

The Global/Local Web Site

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Inside

NOVEMBER 19, 2007
VOL. 41, NO. 47 $5/COPY

News Analysis

A new set of IT buying guidelines may be too complex for all but the largest users. PAGE 12

Users warily await IBM's plan for the Cognos BI tools it's acquiring. PAGE 16

The Grill: Microsoft's Scott Charney details the state of security in Vista – and at his mom's house. PAGE 22

Opinions

Security Manager's Journal: There's never a good time to lose staff, but it could be disastrous during a hiring freeze. PAGE 42

Don't be a CHUMP – a CIO hired for undeniable management and planning. PAGE 44

Don't Miss . . .

Intel CTO Justin Rattner says only multicore machines can keep Moore's Law on track. PAGE 36

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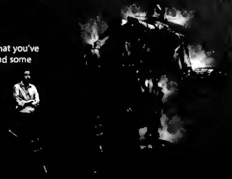
Robots serve man. This is the Robot code. Ask the Robot to mix you a drink, fetch your paper, and provide a soothing shiatsu massage. If he balks, he's evil and will have to be dealt with harshly.

2. Use simple weapons.
Sure, you could build a Robot-destroying laser, but that's hard work. Robots, essentially giant tin cans, can be defeated with a can opener.

3. Insult the Robot.
Robots possess powerful mega-brains, but when it comes to snaps they are powerless. Try this: "Hey, Robot—you're so rusty your logic boards can barely calibrate." Devastating to a Robot.

4. Use Robot psychology.
Even Robots feel love, and Robot romance is weird but real. Build yourself the bride of the Robot and introduce her to the evil Robot. Then just dim the lights, and politely excuse yourself.

5. Try to blend in.
A Robot disguise is easy to make and effective. Use what you've learned at Halloween—silver spray paint, a big box, and some tinfoil—to turn yourself into a Robot doppelganger. Gain their trust, then simply sneak away.



6. Use simple science.
Most Robots have some measure of metal in their bodies, and a big magnet (the bigger the better) is often an effective weapon. Use it to pull them off their feet, scramble their circuits, spin them around, etc. It's actually kind of fun.

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ALISON SEIFFER

■ NEWS DIGEST

6 Microsoft apologizes for its latest **Windows Server Update Services** snafu. | **Intel** releases its line of 45nm **Penryn chips**.

6 Oracle claims its roster of **Linux** support customers is now 1,500 strong. | **High-performance computing** revs up Chrysler cars.

10 Microsoft is setting up **1 million** square feet of **data center** space to support its **online services**.

■ NEWS ANALYSIS

12 Heft of New Tech-Buying Guidelines May Prove Intimidating. The CMMI for Acquisition standard backed by GM and the Defense Department may be too detailed for smaller organizations.

18 Users, Analysts Wary of IBM's Plan for Cognos. Some fear that IBM's $5 billion acquisition of the BI tools vendor could prove costly for Cognos users at non-IBM sites.

■ OPINION

4 Editor's Note: Don Tennant admits that he can't speak to the merit of sexual misconduct and gender bias charges against EMC. But he finds that sort of dysfunction inconsistent with EMC's demonstrated identity as a responsible company.

26 Bruce A. Stewart is seeing more IT departments at the forefront of experiments in HR management.

44 Bart Perkins warns that those who take "visionary" CIO positions lacking operational responsibilities are often doomed to failure.

52 Frankly Speaking: Frank Hayes thinks IT's notion of an "architect" doesn't much resemble the real thing. But we might be better off if it did.

Inside

COMPUTERWORLD ■ NOVEMBER 19, 2007

STEPHEN WEBSTER

■ FEATURES

28 The Global/ Local Web Site

COVER STORY: There's a lot more to localizing a global Web site than translating the words. Here's how IT leaders around the world add local color to their sites while maintaining a uniform corporate look and feel.

34 Portal Panacea

In a first-of-its-kind project, health care data is now available to Denmark's 5.3 million residents through an information portal that also helps physicians collaborate with one another.

COVER PHOTO ILLUSTRATION BY STEPHEN WEBSTER

■ DEPARTMENTS

20 On the Mark: Mark Hall learns that disaster recovery systems fail during testing about half of the time. But a new tool could help.

22 The Grill: Scott Charney, head of Microsoft's Trustworthy Computing program, talks about building in security, facing evolving threats and educating his mom.

RON WURZER

38 Future Watch: Getting to the Core. Intel's CTO says multicore and many-core machines are the only way to keep Moore's Law on track. But programming for parallel processing is a whole new ballgame.

42 Security Manager's Journal: A Tough Time to Lose a Staffer. The state has imposed a hiring freeze, and the IT department is already short-staffed. But is there ever a good time for a resignation?

48 Career Watch: Got a cheap workplace cell phone? In some companies, you'd have only yourself to blame.

51 Shark Tank: What do you get when crafty users come up against a desperate IT pilot fish? For starters, anguished e-mails.

■ ALSO IN THIS ISSUE

Letters 5

Company Index 51

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EDITOR'S NOTE

Don Tennant

One View of EMC

PERHAPS YOU'VE READ about the lawsuit filed against storage giant EMC by two of its former employees, charging the company with engaging in sexual misconduct and gender bias. The suit was filed in federal court in Illinois three years ago, and in September a federal judge began hearing arguments about whether it can be expanded into a class-action lawsuit to include all saleswomen who worked at EMC between 2001 and 2004.

A story on the alleged misconduct was published in *The Wall Street Journal* on Sept. 12, prompting EMC CEO Joe Tucci to write a letter to all EMC employees the same day to rebut the information in the article.

Now, I have absolutely no knowledge of anything on which to base an assessment of the merit of the allegations. I have no idea whether the two women who filed the lawsuit have a legitimate gripe, just as I have no real way of knowing whether Tucci's denial was anything more than the insincere, professionally spun blather of a corporate executive in damage-control mode.

So I'll offer a perspective that's intended to be considered strictly for what it's worth, which may or may not be much at all.

I live and work not far from EMC's corporate headquarters in Hopkinton, Mass., and over the years I've become acquainted with a fair number of EMC employees. I can tell you that the impression I've taken away from those encounters is that EMC is a company with an admirable corporate culture, and that it has a solid reputation as an attractive place to work. That's not a scientific conclusion by any means — just one person's feeling based on anecdotal experience.

I'll also say that that impression was strongly reinforced last month when I met an EMC employee on a flight from San Francisco to Boston. The employee, Ed Van Sickle, was seated next to me, and we struck up a conversation when I saw he had a bag he'd gotten at one of our Storage Networking World conferences.

I learned that Van Sickle is an education consultant at EMC, and it was in that capacity that he'd been on the West Coast. What I discovered from our conversation, and from subsequent e-mail correspondence with Van Sickle, blew me away.

I'm very much aware that getting college kids in the U.S. and other countries to drink the EMC Kool-Aid is smart business.

EMC is engaged in a far-sighted campaign to train future storage technologists by helping colleges and universities to develop storage technology curricula and undertake a range of research projects. Known as the EMC Academic Alliance Program, the campaign is a collaborative effort involving more than 20 educational institutions in the U.S., 101 in India, 21 in China and four in Russia.

Before I get too far into this, let me stress that while I have my faults, naiveté isn't one of them. I'm very much aware that EMC has a vested interest in winning the hearts and minds of the next generation of storage professionals, and that getting college kids in the U.S. and other countries to drink the EMC Kool-Aid is smart business.

But if it were nothing more than a marketing gimmick, the program would not have enjoyed the success it has had. And it appears to be surprisingly broad and vendor-agnostic.

Consider that Quinsigamond Community College in Worcester, Mass., which joined the program in September, will begin offering a course on the concepts and principles of information management and storage technology in January. Although EMC designed the course, it will be taught by Quinsigamond faculty members and will cover the management of systems from multiple vendors.

Moreover, according to Van Sickle, the EMC program is designed to conform to each institution's academic environment and the structure of its curriculum. "We also respect academic freedom," he said, "and encourage faculty to supplement a class with their own materials."

What all of this tells me is that EMC is a company that recognizes responsibility and acts accordingly. While I can't speak to the merit of those sexual misconduct and gender bias charges, I can say that that sort of dysfunction appears to be inconsistent with EMC's demonstrated identity as a responsible company. ■

Don Tennant *is editorial director of* Computerworld *and* InfoWorld. *Contact him at don_tennant@computerworld.com, and visit his blog at* http://blogs.computerworld.com/tennant.

A Turning Point for the Cell Phone Industry

This reminds me of when DOS came out for the PC ["The Google Phone: Has a Wireless Upheaval Begun?" *Computerworld.com*, Oct. 30]. Before that, operating systems were built for a specific model's computer hardware and sold as one unit. Nowadays, you can buy a PC and install almost any operating system on it. This is a turning point in the cell phone industry, caused by carriers realizing the power of the PC market since the iPhone came out.

Google (along with Microsoft and Yahoo, if they follow along, as they always do) will help break consumers away from the industry's proprietary, overly protective clutches. In 10 years, almost everyone will have a smart-phone-type device with Internet and e-mail and more-laptoplike features. The cell phone companies have been holding this progress up. It's ridiculous that if your cell phone breaks in the middle of your contract, you have to pay three times as much for the exact same phone without a new-contract discount. Take 'em down, I say, and let's give the world cell phone service the right way.

■ **S. Gallagher,** *Doylestown, Pa.*

It's Time for Data Encryption at Rest

I have to agree with Art Coviello ["Q&A: EMC Exec Says 'Dumb Storage' Administrators Are Dinosaurs," *Computerworld.com*, Oct. 30]. While I haven't evaluated the products he discusses, as a CTO who confronted this issue for a large government agency, I am convinced there is no secure alternative other than to encrypt data at rest. We generally encrypt in motion, but that solves only intercept issues, whereas most incidents of hacking and accidental loss of data involve the data at rest. Building moats (firewalls, host security, etc.) without protecting the actual asset (the data) is not going to work long term. Encryption at rest won't solve it all, but it will dramatically reduce losses and allow us to focus on authentication and authorization, which ultimately are keys if data is fully encrypted in all states.

■ **Mark Day,** *CTO, McDonald Bradley Inc., Herndon, Va.*

10 Things We Hate About Laptops

Sure, laptops have revolutionized the way we compute. But they're a support nightmare, and they drive IT crazy.
computerworld.com/mobilewireless

Why Telecommuting Stinks

While you're working at home, you might just miss out on that big promotion. Here are eight drawbacks you should consider.
computerworld.com/careers

Supercomputers Are Finally Going Mainstream

IDC says one in four chips goes into a high-performance computer. Catch up with the announcements from last week's Supercomputing 2007 show, including Microsoft's .Net-based tools to help existing software play nicely on multicore machines.
computerworld.com/servers

Corporate Blogging: Does It Really Work?

Companies are using blogs to promote collaboration, manage projects and handle workflow processes. Read about what works and what doesn't.
computerworld.com/networking

Extreme Energy Makeover: Home Office Edition

Replacing equipment and changing some habits makes a big difference in the author's energy usage. Here are some tips and tricks.
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News Digest

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THE WEEK AHEAD

MONDAY: Hewlett-Packard plans to announce its financial results for its fiscal fourth quarter, which ended Oct. 31.

MONDAY: The U.S. Census Bureau is scheduled to report on third-quarter retail e-commerce sales.

MONDAY: The International Association of Science and Technology for Development opens a trio of conferences in Cambridge, Mass. The events focus on parallel and distributed computing, software engineering and intelligent systems.

ISTOCK

SECURITY

Micros[illegible]kes Gaffe in Time fo[illegible]ch Tuesday

FOR THE SECOND TIME in less than three weeks, Microsoft Corp. had to apologize for problems with a tool that many IT managers rely on to deploy the software vendor's security patches and other software updates.

The latest snafu to afflict users of Microsoft's Windows Server Update Services software came to light last Monday morning. At that time, network administrators started posting messages on WSUS support forums saying that the patch-delivery tool's management console was reporting an error that blocked them from retrieving updates.

The timing couldn't have been much worse, since Microsoft was scheduled to release its monthly batch of security fixes the next day.

Late Monday, Bobbie Harder, a senior program manager in Microsoft's WSUS group, said in a blog posting that the glitch had resulted from a coding error in the database containing the list of products that the update tool supports.

Harder wrote that in renaming a product category entry, a worker had put double quote marks around the word *Nitrogen*. Double quotes, she explained, are "a restricted character within WSUS, which created an error condition on the administration console." The error was passed on to user-side WSUS servers when they were synchronized with Microsoft's systems. Harder said a fix was applied Monday afternoon, in time for the Patch Tuesday updates.

Aaron Moore, a system support specialist at DeKalb Memorial Hospital in Auburn, Ind., said that instead of waiting for Microsoft's fix, he used SQL queries that had been posted on a support forum. "I applied the two SQL queries to manually fix the tables and was able to get back into WSUS without any errors," he wrote in an e-mail.

Harder said her team would add checks and new publishing tools in an effort to curb similar errors. But she said much the same thing last month after acknowledging that a recycled WSUS update package had force-fed Windows Desktop Search to PCs that had been told to ignore that product.

Andrew Storms, director of security operations at nCircle Network Security Inc., said the double-quotes gaffe was pretty basic. "That's SQL Server 101," he said. "How that ever got through Microsoft's [quality assurance] is a real worry."

— Gregg Keizer

Intel Moves to New Level With Penryn Chips

Penryn processors, released last week, are based on new 45-nanometer technology that analysts say should provide a performance boost that will benefit serious multitaskers, researchers and gamers.

The Penryn release comes just two months after Intel rival Advanced Micro Devices Inc. started shipping its quad-core Barcelona chip, which was built using older 65nm manufacturing processes. AMD isn't expected to move to 45nm technology until the second half of 2008. The Penryn line includes 15 dual- and quad-core Xeon server processors, plus a quad-core Core 2 Extreme desktop chip.

Dean Freeman, an analyst at Gartner Inc., predicted that the Penryn processors will be 20% to 50% faster than Intel's previous chips. "It's going to mean a faster desktop," he said.

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NEWS DIGEST

LINUX

Oracle Claims Early Wins In Battle With Red Hat

SAN FRANCISCO

ORACLE CORP. last week said its yearlong push to take on Red Hat Inc. in the Linux market has reaped 1,500 corporate customers for its Unbreakable Linux support program.

Most of those customers — well over 1,450 — signed up for the service during the past six months, with "virtually no selling at all," said Oracle CEO Larry Ellison during a keynote speech at the company's OpenWorld user conference here.

"We did all of this while just building up our Linux sales team," he said.

At a price ranging from about $99 to $2,000 per year, the Unbreakable Linux program provides support for Red Hat Enterprise Linux and Oracle's close clone of that operating system, as well as the applications that run on them.

Red Hat's Linux business continues to far outpace Oracle's — Red Hat CEO Matthew Szulik said in June that the company added "multiple thousands of customers" in its first quarter of fiscal 2008 alone. Nonetheless, user reaction at the show indicated that Raleigh, N.C.-based Red Hat may be vulnerable.

For example, Brad Maue, CIO at Stuart Maue Co., said the Oracle support offering is "half [the price] of Red Hat. And we feel we get twice the attention." The St. Louis-based legal auditing firm switched its Linux support from Red Hat to Oracle about a year ago, he said.

ELLISON says Oracle signed up many new Linux support customers "with virtually no selling."

Tim Heath, a senior database engineer at Yahoo Inc., said that his company turned to Oracle's Linux support offering after some bad experiences with Red Hat. "There were some bugs in Linux" that Yahoo couldn't get Red Hat to fix, Heath said.

Yahoo, which runs Red Hat Linux on 50,000 of its 150,000 servers, now has Linux support contracts with both Oracle and Red Hat, Heath noted. "We like to pit the two against each other to see who submits fixes faster," he said.

Yahoo has found that using Oracle's Linux support eliminates the "finger-pointing" between the applications and platform departments when a problem arises, he said.

Red Hat officials downplayed Oracle's Linux efforts. "This is not about offering better support," said Red Hat Chief Technology Officer Brian Stevens. "This is about ownership of the IT stack for Mr. Ellison."

— Eric Lai

Short Takes

has won a lawsuit filed by a company that had charged it with infringing on a patent for technology that helps computers boot up faster was seeking $600 million to $900 million for Microsoft use of the technology in Windows XP

has agreed to acquire a hosted service management provider Terms of the deal were not disclosed When the sale closes later this year, Everdream will become part of Dell's global services organization

disclosed on its Web site that it plans to fix just 20% of the bugs now in Version 3.0 of its browser before the final version is released next year The company has asked developers to prioritize already-identified bugs.

has delivered a "release candidate" version of to 15,000 by-invitation-only testers and said it was on track to ship the update early next year

SUPERCOMPUTERS

HPC Revs Up Chrysler Cars On NASCAR Tracks – and Off

John Pickle, manager of high-performance computing (HPC) at Chrysler LLC, is a NASCAR fan. But he isn't particular about who wins the races – as long as they're driving Dodge cars.

Chrysler engineers use the systems that Pickle oversees to try to improve the performance of the company's race cars. If a Dodge driver crosses the line first – as Kurt Busch and Juan Pablo Montoya did this year – Chrysler's workers share in the congratulations.

The HPC work sometimes goes for naught, Pickle said at last week's SC07 conference in Reno, Nev. "We can make an improvement and get a couple of more miles per hour out of it – and if the driver just skims the wall on Lap 67, he can negate what we did," Pickle said.

Dodge driver Kurt Busch won NASCAR races in Pennsylvania and Michigan this year.

But he added that the HPC systems, which have 1,650 processor cores running in Linux and Unix clusters, are helping Chrysler improve other vehicles.

For instance, by running computational fluid dynamics simulations, Chrysler engineers discovered how eddies of air affect the race cars and how drag could be reduced. That knowledge was then applied to passenger car designs, Pickle said.

– PATRICK THIBODEAU

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Microsoft Plans Pair of 'Big Box' Data Centers

GETTY IMAGES

MICROSOFT CORP. is developing nearly 1 million square feet of data center space in two supersized facilities, one in Austin and the other near Chicago, to help support its growing online services offerings.

Microsoft announced this month that it is setting up a 550,000-square-foot data center in Northlake, Ill. The building's area is equal to about 12 acres of land, which would be enough space to comfortably house four or even five "big box" retailers.

The Northlake data center will begin operating early next spring, Microsoft said. In addition, in July the company began building a 447,000-square-foot data center in Austin that it expects to open next summer.

Microsoft is leasing the Northlake facility, which was built by data center development firm Ascent Corp. and a partner. Ascent CEO Phil Horstmann said the original plan was to divide the space among as many as eight users.

The data center will house "tens of thousands" of servers, said Mike Manos, Microsoft's senior director of data center services. But it will be tended by just 30 people, including IT staffers, security personnel and janitors, he said.

Microsoft will rely heavily on automation to run the data center. And to keep energy costs down, it will use air-side economization — essentially, open windows. Manos, a Windy City native, said that during the fall, winter and spring, cold outside air will be used to chill the data center.

— Patrick Thibodeau

BETWEEN THE LINES *By John Klossner*

Chairman Bill Gates led his last annual shareholders meeting as a full-time employee. Gates plans to give up his day-to-day role next July but will continue as chairman.

said that CEO Bruce Chizen will step down when its 2007 fiscal year ends Nov. 30. Shantanu Narayen, who is currently Adobe's president, will replace Chizen.

Teletype Corp. announced a page printer that could print as many as 1,200 words per minute using electronically controlled jets of ink.

Global Dispatches

Jetstar Awards Kiosk Pact to IBM

MELBOURNE, AUSTRALIA – Jetstar Airways Pty. has awarded a $3 million ($2.8 million U.S.) contract to IBM Global Business Services to supply, implement and support Web check-in and kiosk systems for its domestic customers.

The Melbourne-based low-fare airline, a unit of Qantas Airways Ltd., said the new system will supplement existing customer check-in processing operations at airports in Melbourne, Sydney and Brisbane.

The three-year contract calls for IBM to provide 32 airport check-in kiosk units and applications, as well as project management, implementation and support services.

Stephen Tame, general manager of IT at Jetstar, said the project will streamline the airline's business processes and increase its customer check-in capacity.

Sandra Rossi,
Computerworld Australia

India Lists 3G Auction Guidelines

NEW DELHI – The Indian government last week unveiled broad guidelines for companies bidding to install third-generation (3G) wireless technology in the country.

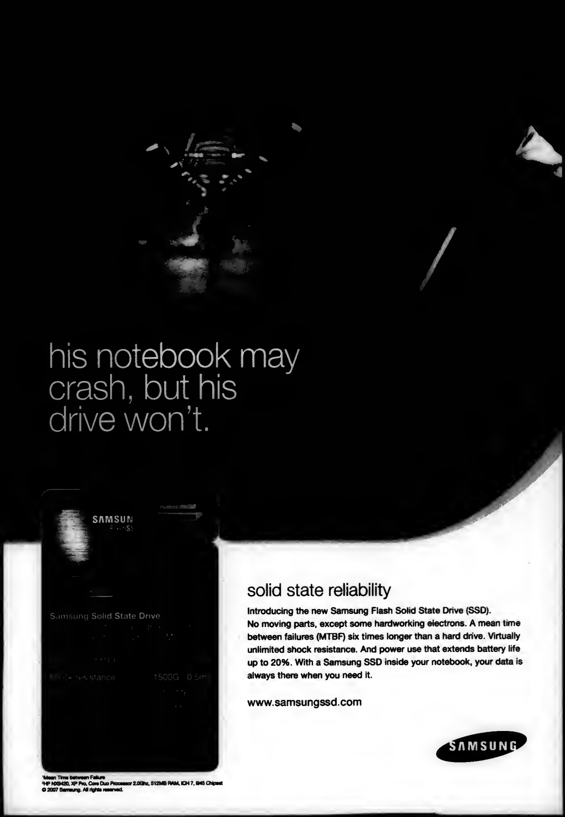
A. Raja, India's communications and IT minister, said that 3G licenses will be granted to winning bidders in an as-yet-unscheduled spectrum auction. All bidders, which can include India's existing mobile service providers along with newcomers, must receive security clearance from the country's Home Ministry, he added.

All of the 3G licensees will be required to provide rural coverage, Raja said.

John Ribeiro,
IDG News Service

BRIEFLY NOTED

TravelSky Technology Ltd., a Beijing-based provider of software and IT services, has agreed to purchase 10 additional ES7000 enterprise servers and support services from Blue Bell, Pa.-based Unisys Corp. Terms of the deal were not disclosed. The servers will be equipped with Open Message Switch Engine functions to help expand system capacity for daily communication among airports and airlines.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[1] Mean Time between Failure

[2] HP NX9420, XP Pro, Core Duo Processor 2.0Ghz, 512MB RAM, ICH 7, 945 Chipset

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ALISON SEIFFER

Heft of New Tech-Buying Guidelines May Prove Intimidating

GM and the Pentagon are backing a proposed set of best-practices rules for IT purchasing. But the standards may be too daunting for smaller organizations.

By Patrick Thibodeau

TWO OF THE world's largest technology users, General Motors Corp. and the U.S. Department of Defense, are backing a proposed set of best-practices guidelines for IT purchasing as a way to help organizations reduce the risks and costs of projects.

But it's uncertain whether the multiyear effort to create a new version of the Capability Maturity Model Integration (CMMI) framework that is focused on the acquisition of IT products and services will convince many companies to change their internal processes. The guidelines are spelled out in a daunting document and, as with other CMMI process standards, could take several years for users to master.

"It's 441 pages of process methodology talk, and very few outside of the largest organizations and IT shops are going to have the time and energy to invest in that," said Jeff Muscarella, a partner at management consulting firm NPI Inc. in Atlanta. "You have to be kind of a process zealot to want to wade through it."

The CMMI for Acquisition, or CMMI-ACQ, standard was announced by the Carnegie Mellon Software Engineering Institute during a teleconference held on Nov. 7. The Pittsburgh-based SEI developed the guidelines with IT users and vendors in response to the increasing use of packaged software and external services.

The first public release, called Version 1.2, is based on a draft that GM submitted to the SEI last year. Ralph Szygenda, the automaker's CIO and the leading advocate for the standard, said during the teleconference that he is confident

Continued on page 16

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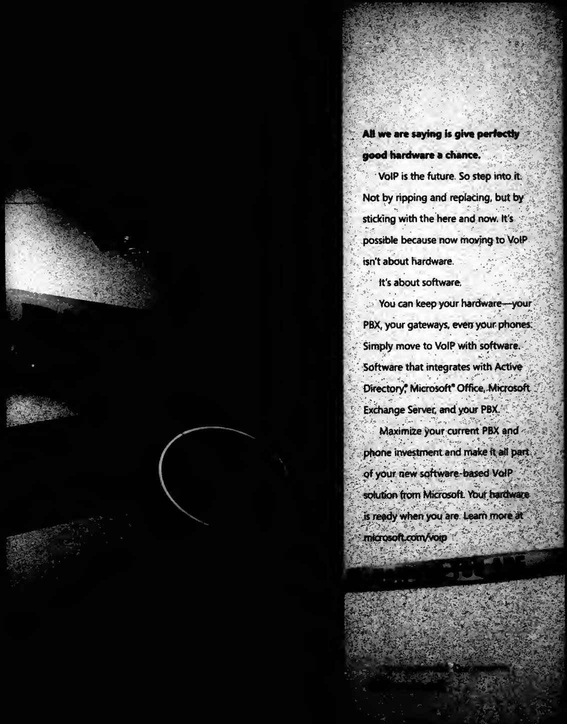

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> **We have very few programs that get into trouble, very few programs that are late and very few programs that run over.**
>
> **RALPH SZYGENDA,** GM'S CIO, ON THE BENEFITS OF GM'S STANDARDIZED IT PROCESSES

Continued from page 12

that it "will fast become the model of choice for IT acquisition and supply chain management."

"I think this has gone a long way to standardize some processes, so that both the supplier and acquirer are speaking the same language," Szygenda said.

His advocacy for having a purchasing standard was sparked by GM's decision to outsource most of its IT operations to multiple vendors, a process that culminated early last year when the company awarded six vendors contracts worth a total of about $7 billion. To avoid a Tower of Babel situation, GM defined a set of standard IT processes that all of the suppliers must follow.

Before it did so, GM was "buying more than we were building but didn't have the acquisition standards" to make the purchasing process as efficient as it could be, Szygenda said. So in 2004, he began working with the SEI, believing that a standardized approach could help GM and other companies.

INTENSIVE GUIDELINES

The CMMI-ACQ document provides a broad overview of process methodologies and then goes into exhaustive detail about IT purchasing procedures. For instance, it moves from advising organizations to make sure that they have the required funding, facilities, skills and tools in place to discussing methods for keeping track of and addressing product defects.

But Muscarella and other analysts said that the prescribed processes may be too exhaustive for many technology users and that the guidelines will work only if both users and suppliers agree to follow them.

Companies typically focus on individual projects, Forrester Research Inc. analyst Alex Cullen said. Most, he added, have only recently begun thinking of managing overall purchases from vendors and service providers "as a skill or competency that they had to be good at."

Cullen said that to gain broad adoption of CMMI-ACQ, the SEI and other backers of the proposed standard need to "come up with a lightweight-package version of this thing."

Szygenda acknowledged that the purchasing approach called for by the guidelines "is new for a lot of companies." But standardizing IT acquisition on a global basis "will improve productivity, quality and reliability," he said. "We have very few programs that get into trouble, very few programs that are late and very few programs that run over."

Starting Position

The CMMI-ACQ guidelines recommend the following steps to get the ball rolling on an internal process-improvement effort:

- **Ensure that adequate resources are available to make the project a success.**
- **Personally monitor the progress of the improvement effort.**
- **Be a visible advocate and spokesman for the initiative.**

The warnings included in the guidelines couldn't be clearer. Citing studies indicating that as many as 50% of large IT projects fail within five years, the CMMI-ACQ document says that "many organizations have not invested in the capability necessary to effectively manage projects."

According to the document, IT managers often "disengage from the project" once a supplier is hired. After having done so, they may discover too late that "the project is not on schedule, deadlines will not be met [or] the technology is not viable," the document says.

The CMMI framework traces its roots to the 1980s, when the Department of Defense was looking for a way to assess the work being done by the contractors it relies on for software development. The SEI said that CMMI-ACQ is meant to complement the existing CMMI for Development and that the two standards have many similarities.

The U.S. government has continued to be the largest supporter of process methodologies — perhaps partly because it has seen some spectacular project failures, such as the FBI's scuttling in 2005 of a case management system on which it had spent $170 million.

In particular, the U.S. Government Accountability Office has called for the adoption of recognized best practices. Keith Rhodes, the GAO's chief technologist, said during the SEI's teleconference that he sees merit in the CMMI-ACQ standard. "Anyone who is interested in process improvement, especially in the acquisition world, should consider adopting CMMI for Acquisition," he said.

Lorrie Scardino, an analyst at Gartner Inc., said she thinks CMMI-ACQ's early adopters will be IT departments that have heavily outsourced their operations but are getting inconsistent results from vendors. "I can see some leading organizations being in the first wave of looking at this," she said.

The DOD is a prime example. But even within the military, adoption of the guidelines isn't assured.

Kristen Baldwin, the Pentagon's deputy director of software engineering and system assurance, said that the DOD has conducted a CMMI-ACQ pilot program and plans to make the purchasing standard available for use internally. It also will provide training on using the guidelines, she said.

However, DOD officials won't require that the standard be used, said Baldwin. "We simply want to approach it as a way to distribute the knowledge of good acquisition best practices." ■

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Users, Analysts Wary of IBM's Plan For Cognos

Some fear that the $5 billion acquisition could prove costly for non-IBM sites.

By Heather Havenstein

CUSTOMERS running Cognos Inc.'s tools must keep a close eye on plans for the company when IBM's purchase of the business intelligence firm closes early next year, users and analysts said last week.

IBM last week announced that it had agreed to buy Ottawa-based Cognos for $5 billion in cash.

Ted Bross, associate director of administrative information services at Cognos user Princeton University, said that he hopes that IBM can use its financial muscle to improve support for the BI tools. "[Cognos] is not very strong in training, documentation and customer support," he noted.

However, Bross said that at this point he isn't confident that the IBM deal is a good one for Cognos users in the long term, especially at non-IBM sites. "We are primarily an Oracle shop, and this may eventually conflict with our strategic direction," he said.

"We have tried to build our [Cognos] reporting strategy and data warehouse in such a way that we could switch products if need be," Bross noted. However, he added, "it would be an incredibly arduous process to rewrite all reports using different technology."

Mark Smith, an analyst at Ventana Research Inc. in San Mateo, Calif., said that one early decision by IBM — to incorporate Cognos into its Information Management software unit — doesn't bode well for users.

The Information Management group includes IBM's database management, data warehousing, content management and data integration products.

Smith contended that the move shows that IBM considers BI tools to be less important than the offerings of its stand-alone WebSphere and Lotus units. "We'll have to see how that plays out," he said. "To put it down at that level is not well connected to how the market perceives the value of BI and performance management."

David O'Connell, an analyst at Nucleus Research Inc. in Wellesley, Mass., noted that the success of the IBM-Cognos deal will depend largely on whether IBM tightly integrates the acquired tools with its own software products.

"I am not sure it will be more than a bolt-on for IBM," he noted. "For end users, I am not sure what the benefit is. For IBM and Cognos, it means they can get into each other's customer bases."

Cognos users, O'Connell added, must be sure to question their IBM sales representatives about the company's product road map before the deal closes.

O'Connell did note that Cognos users are better off than customers of Hyperion Solutions Corp. and Business Objects SA, which have recently been swallowed up by larger vendors Oracle Corp. and SAP AG, respectively. Those companies will likely force customers of the acquired firms to buy their expensive ERP applications, he said.

Oracle completed its $3.3 billion acquisition of Hyperion last spring, and SAP expects to close its agreement to buy Business Objects for $6.7 billion in the first quarter of 2008.

Mark Lack, planning and financial analysis manager at Cognos user Mueller Inc., a Ballinger, Texas-based manufacturer of building materials, said that he expects that the deal will benefit Cognos users. "Being part of IBM will open up Cognos solutions to an even wider audience," Lack said.

At a press briefing, Steve Mills, senior vice president and group executive for IBM's software group, said he expects the combined firm will better respond to user needs than a stand-alone Cognos could.

"Independent companies finally reach a point where it becomes very challenging to execute against a set of complex, high-performance requirements," Mills said. ■

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MATTHEW FAULKNER

Disaster Recovery Is a Disaster

“DISASTER RECOVERY simply doesn't work.” Scary words from Gil Hecht, CEO of New York-based Continuity Software Inc., who claims that at least 60% of all disaster recovery (DR) tests bomb. If he were alone in his assessment, you could dismiss his view as simply that of a self-interested vendor. But Sean Derrington, director of storage management at Symantec Corp. in Cupertino, Calif., says that in his company's poll of data center managers earlier this year, half of the respondents said their DR tests had failed. The reason? Primarily, it's you or your staff, says Hecht. “IT people make changes all day long to operational systems,” he says. While they do test the changes in their production environments, it's almost certain they don't test them from a DR perspective, he asserts, even if they make the updates to the DR systems themselves. Why not test the DR side? Hecht answers with an analogy: “The only way you can test an airbag in your car is if you hit a tree.” In other words, you can't test your DR systems without a major disruption to your daily production environment. Naturally, Hecht has a software tool that detects whether your DR system is out of sync with your day-to-day operating environment. The RecoverGuard software contains a database that tracks configuration differences between the two data centers. Version 2, available next week, includes a configuration wizard, an executive dashboard and additional reports. Pricing starts at $15,000.

Hecht: DR fails the test.

Get More From Existing Reports

IT departments regularly generate reports for the business side. Those efforts often take the scripting or programming skills of one of your staffers and a good chunk of time. John Kitchen, chief marketing officer at Datawatch Corp. in Chelmsford, Mass., thinks you might be missing a better way — generating new reports from old ones. He says existing report data is “trustable,” and since it has often been audited, it's an ideal source for creating new reports. However, the data is also static, so you'll need to extract and manipulate the information and, ideally, let end users do the work themselves, since they know best what they want. How, you ask? First, Kitchen says, get a copy of Datawatch's Monarch software. It takes the data used to generate a report and turns the info into a two-dimensional table that users can manipulate into new reports. Often, users merely want to recast the data in new ways and ask you for yet another report. Give them Monarch, and your report backlog may slowly vanish. Among the changes in Version 9, due by month's end: Monarch will support OpenXML, sport a new Web admin console and be able to export Excel formulas. Pricing starts at $8,995.

Users can mine existing reports for new data, says Kitchen.

Author Docs Via DB

As you create applications for the business, someone in your group is creating the documentation to go with them. There's often a lot of overlap in documentation, since apps borrow code from one another. If you used the eponymous documentation tool from Author-it Software Corp. in Auckland, New Zealand, you could easily borrow the documentation with the code, says CEO Paul Trotter. He says Author-it stores content in a database and, with its new Xtend feature, reads what a doc writer is typing. It can then show the author whether the content has already been written and approved. Author-it can generate content in 12 different formats for print and online. Next year, Trotter says, the vendor will update its revision management and document-review components. Prices begin at $8,000. ■

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■ THE GRILL

Scott Charney

Microsoft's **computer crime specialist** talks about **building in security**, facing **evolving threats** and **educating his mom**.

Dossier

Name: Scott Charney

Title: Corporate vice president, Trustworthy Computing

Company: Microsoft Corp.

Location: Redmond, Wash.

Pet peeve: Being asked for his phone number at the checkout lane. "When they ask me, I say, 'You don't need it. Why? Are you going to call me at home? What's your phone number? Are you going to give me that?' They are just collecting data, and that violates every fair information principle."

What he does when he's not thinking security: "I have three children. So when I'm not thinking security at Microsoft, I'm going to soccer games and swim meets. One of my children is only 2, so I spend a lot of time chasing him around the house."

A sporting proposition: "I tend to root for the home team. When I was in New York, people would say, 'Yankees or the Mets?' And I would say, 'New York.' I went to Shea Stadium, I went to Yankee Stadium; it didn't matter. Now I'm in Seattle, so I'm kind of rooting for the Seahawks and the Mariners."

Scott Charney is a former federal prosecutor of computer crimes and a former assistant district attorney in Bronx, N.Y. Currently, as corporate vice president of Trustworthy Computing at Microsoft, he is among those at the helm of the company's long-standing efforts to improve the security of its products.

Does it frustrate you that Microsoft still gets a pretty bad rap on security? We used to be the laughingstock of security, and now you read all sorts of articles saying you should follow Microsoft's lead. The challenge is quite often in dealing with unrealistic expectations. We still have vulnerabilities in our code, and we'll never reduce them to zero. So sometimes we will have a vulnerability and people say to me, "So the SDL [Security Development Life-

Continued on page 24

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> **It was our aspirational goal [to] get rid of every bug. But let's get realistic for a minute. It's not a realistic goal.**

Continued from page 22

cycle] is a failure, right?" No, it isn't. It was our aspirational goal [to] get rid of every bug. But let's get realistic for a minute. It's not a realistic goal.

What has been the biggest contribution of Microsoft's Trustworthy Computing initiative? The biggest contribution in the security space has been the Security Development Lifecycle. We have processes in place now where we build documented threat models at design time, and as you architect code, you are always mitigating against these threat models. The threat models get updated during the course of development to keep them current. At the back end, we have a final security review where we look at the product and all the bug scrubs and all the work we have done to see if the product is ready to ship from a security perspective. This, I think, is the biggest change.

Vista is the first operating system that has gone through the SDL process right from the beginning. Are you satisfied with the effect that SDL has had on Vista security? Yes and no. I am satisfied in the sense that the vulnerability counts are down for Vista over the comparable periods in XP. We also know that vulnerabilities won't get to zero — with complex code written by human beings and all of that. So the question is, Where is that sweet spot, and have we hit it yet? And my sense is not yet. We need better automated tools to find bugs, which are a big issue for the entire industry. I think Vista overall continues the progress, but we need to continue to focus on automated tools.

How is the threat landscape evolving? Over the last few years, as vulnerabilities have been reduced in code, bad guys are adapting, so you see, for example, a lot more social engineering. Lots of consumers who are victims of ID theft get taken because they follow a link that looked legitimate but actually the URL goes out to some Eastern European location where they are asked to enter their username and password. There's no [technical] vulnerability exploited with social engineering. Studies have also shown that a lot of exploits at companies are either insiders who are exploiting their authorized access to systems or because of system misconfigurations.

What should companies be doing to mitigate the portion of the risk they own? There are two risks. One is the risk to their company, which they may have decent data on and have their arms around. Then there's the risk created by interdependencies, which are very, very hard to measure in some contexts. In the post-9/11 world, the financial sector had a rude awakening about the impact of telecom to their businesses. They could have been up and running sooner, but this other infrastructure was lost. Understanding those kinds of interdependencies is hard.

The other thing is that business models are changing. Everything from moving from traditional phone networks to VoIP, offshoring, global sourcing, anywhere access, the de-perimeterization of the network — all of those business changes require them to think about the risk model and how it changes what they are doing and how they need to adapt to mitigate those risks.

What about consumers and the risk they pose? They play a huge part. One of the things I talk about often is my mom, because she is 78 and she's found e-mail. I remember encouraging her to get broadband because she was using dial-up. I told her she really needed to get broadband but to make sure to have a firewall, and she asked me why broadband causes fires. The reality is, my mom doesn't want to become a security administrator. You have to educate consumers not to make mistakes, like clicking on attachments from unknown sources and following links and all of that. At the same time, we know users will click OK on any dialog box, and you have to find a way to manage these things. It is really critical that the IT industry does a much better job of what I call security usability.

So, who is responsible for securing consumers? One of the reasons that enterprises are secure is that they have a CIO, a CSO and people dedicated to making sure the network is secure. Who is the CSO or the CIO for the consumer? The answer is not simple. Some access providers have the ability, because they are the point of entry to the Internet, to do network access control and provide tools to help keep their customers clean, and some are doing that. And vendors on the desktop certainly have an obligation to produce more-secure code and be more manageable. So it's a shared responsibility between the consumer, the access provider and the vendor.

What keeps you awake at night? Two things. One is complacency. You know, at Microsoft, as we've invested all this effort around security, our numbers have stared getting better and better and more and more people are [saying], "Microsoft got its act together and others should follow their lead." Technologists say, "OK, our job is done; what next?" What I explain to people is that this isn't actually a technology problem we are solving; it's a crime problem. The other is the evolving threat model.

— Interview by **Jaikumar Vijayan**

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Microsoft

The Highly Reliable Times

VOLUME 1 – ISSUE 5

Windows Server 2003

[redacted]

SWISS SEES RELIABILITY SOAR WITH WINDOWS SERVER, CHECKS RED HAT AT GATE

Tom Nagy for The Highly Reliable Times

THE SWISS INTERNATIONAL AIR LINES hub, located in Zurich, Switzerland.

Global Airline's Migration Yields 99.95% Reliability

By MICHAEL BETTENDORF

ZURICH—Swiss International Air Lines (swiss), Switzerland's national airline, serves 70 destinations around the world with 6,500 employees in 100 branch offices. Today, 14% of swiss's total ticket sales are processed through its online flight booking system at Swiss.com, with volume increasing by 30% per year. 24x7 operations are critical for this site because of its importance to the airline's business, but the original Red Hat Linux–based booking system was not meeting swiss's requirements. So the airline began its search for a more reliable platform.

Reliability also drives market perception in the airline industry, according to swiss CIO Frank Meyer. "In our business, having a plane in the maintenance hanger is not good for our image. It is the same for our online service—people expect it to be up and running," says Meyer.

After an intensive evaluation, Meyer and his team chose Windows Server® 2003 and .NET. Since migrating the online booking system to Windows Server, swiss has seen reliability rise to 99.95%. In addition, while the previous Red Hat Linux–based system could only handle 250 concurrent users, the new system can now handle significantly more traffic than that. Meyer is confident about the affect of these changes: "Moving uptime to 99.95% while increasing performance to handle a growing number of users enables the team to easily handle the 30% growth we are seeing in our online sales."

For the full swiss story, plus other case [illegible] and [illegible] on the [illegible] Server [illegible]

STUDY: Side [illegible] of [illegible] include [illegible]

A study [illegible] when [illegible]

OPINION

Bruce A. Stewart

IT Testing New Ideas in Managing

MOST YEARS in IT management have been like the ones that went before them, but as 2007 draws to a close, some real changes are starting to take hold.

More than a third of my clients are now using the IT function to experiment with new ideas in managing. This is putting the IT management team at the forefront of experiments in human resources. Here's some of what I'm seeing.

Collaborative workplaces: Using the model Jon Husband promoted back in 2001 as "wirearchy," these organizations are focused on making collaboration real — and profitable. They embrace new technologies, like the iPhone and pervasive Wi-Fi, that facilitate participation. When performance is judged, managers look at whether staffers contribute to user groups, whether they are known as the go-to people for a particular issue and whether they have added good ideas to the discussions that permeate the company.

The challenge for these managers is to figure out who really performs, versus who is just a prolific commenter with nothing much to say or who has abandoned project tasks to blog constantly. They are experimenting with ways to follow the organizational discussion and evaluate staffers without being intrusive and without slowing things down by adding more meetings to the workload.

Constant recruitment: A lot of organizations are hiring people for their potential, not simply to fill a job. They're looking a few years down the road to when the great demographic turnover will begin.

On some aging staffs, more than 20% of employees are already capable of retiring on a full pension; if they decided enough is enough someday, they would suffer no financial penalty. One executive put it this way: "We don't have a problem yet. What we want to do, though, is start now to build for the future. We want to raise the caliber of the entire group and become known as the place to work, so we always get to pick from the cream of the market."

These changes are already paying dividends for everyone.

At these companies, human resources doesn't prescreen résumés for job matches. The IT leadership teams spend significant time — about 25% of their week — interviewing, even when they are fully staffed. They have been given money to go over head count so that they don't miss out on the best talent they see. They've also developed skill maps, showing the longevity of skills in the company, and have tied this to technology portfolio management efforts so that they can retire or replace older tools and technologies in a financially sensible way.

How are they paying for all this? They're taking on fewer contractors and consultants. After all, using outsiders to do all the interesting IT work, as they've done in the past decade, has become a roadblock to hiring the best talent available. Having a strong in-house staff means they'll be able to meet the challenge of accommodating planned business changes that will require wrapping standard packages with a homegrown set of services. And hiring new voices with fresh ideas diminishes the problem of potential avenues of exploration being dismissed too easily by staffers who have lived through many failed projects.

Leaders everywhere: All of this is leading to a much broader definition of "leader," so that these organizations have more leaders than managers. The next battle will be to overturn a system that dictates that you must become a manager to get the next pay grade. That system is getting in the way of broad-based leadership. And when IT staffers are motivated to lead without managing, managers will be able to truly manage and develop their people. It's a set of changes that is already paying dividends for everyone. ■

Bruce A. Stewart *is CEO of Vancouver, British Columbia-based Accendor Research Inc., an advisory services firm focused on management issues in the technology-enabled enterprise. He can be reached at bruce.stewart@accendor.com.*

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The Global/Local Web Site

Why you need it; how to build it.

By Mary Brandel

IT WAS NEARLY 10 YEARS AGO that FedEx Corp. first decided to translate its Web content and applications for non-English-speakers throughout the world. At the time, it was ahead of the game, but today, companies in all kinds of industries realize it's crucial to speak to customers around the world in their native languages. ■ "Five years ago, I had to make the case for Web globalization and translation, but now, it's more a question of how to do it effectively, in a user-friendly and cost-effective way," says John Yunker, founder of Web globalization consultancy Byte Level Research LLC and author of *Beyond Borders: Web Globalization Strategies.*

Today, FedEx's site supports 25 languages, and in many ways, it's still ahead of the game, because the company has learned one of the most important lessons about globalizing a Web site: It takes a lot more than translating words into multiple languages.

"Web globalization has to be a strategy, not a task," says Tracci Schultz, manager of global content management at FedEx. "It's something you have to build into your processes and have a plan for; it doesn't just happen."

> **"Web globalization has to be a strategy, not a task.**
>
> **TRACCI SCHULTZ,** MANAGER OF GLOBAL CONTENT MANAGEMENT, FEDEX

A lot of companies are still learning that. "Most are just now coming to terms with the unique challenges of Web globalization," Yunker says.

It's one thing, for instance, to translate your main Web content into a few languages. It's quite another to globalize Web functions such as shipment tracking, searching, shopping carts and reservations, which require varying date, currency and behavior conventions, he says. There's also the need to branch out into languages like Chinese that require double-byte character sets.

And it's not all about words. Images, colors and density of content convey cultural nuances as well, Yunker says. Consider as well that few Web sites remain static for long and that you're often working with people on several continents to accomplish goals like consistency, flexibility and ease of navigation, and you can see how globalization complicates Web site management issues.

Some of the lessons FedEx learned include how to create a Web design that accommodates local languages and cultural nuances while maintain-

STEPHEN WEBSTER

> **"The truth is, while the Internet is worldwide, location matters.**
>
> **MARIA KIAMOS SHAH,** GLOBAL HEAD OF EA GOVERNANCE, NOVARTIS

ing a global look and feel, how to develop an efficient way to manage the translation process, how to ensure that the site aligns with global and local branding strategies, and the importance of appointing a high-level executive sponsor to make sure everything gets done, Schultz says.

GLOBAL VILLAGE

With the rapid growth in developing markets around the world, many companies have felt an increased urgency in the past two or three years to globalize their Web sites, says Kevin Bolen, chief marketing officer at Lionbridge Technologies Inc., a Waltham, Mass.-based provider of globalization and offshoring services. Indeed, in Yunker's annual ranking of the top 200 global Web sites, he has seen the average number of languages supported increase from 15 in 2006 to 18 this year. The top 20, he says, support an average of 45, and the site with the most supported languages is Wikipedia, with 250.

The top-ranking company on Yunker's list is Google Inc., whose search interface supports 115 languages and whose Web applications, such as Blogger and Adwords, have been localized into 40 languages. FedEx ranks 36th.

With globalization comes increased sophistication, which means it's not OK to put the U.S. at the top of a list of supported locales rather than listing them in alphabetical order; to put flash animation on your home page, assuming it can be easily viewed by users in developing economies; or to use country flags to denote the languages you support, since many countries have more than one official language.

"The truth is, while the Internet is worldwide, location matters," says Maria Kiamos Shah, global head of enterprise architecture governance at Novartis International AG, a Basel, Switzerland-based health care company that has operations in 140 countries. "What's important to somebody in Germany may not be important to someone in the U.S."

Global/Local: What Makes a Great Web Site?

In its annual Web Globalization Report Card, Byte Level Research rates Web sites on multiple criteria, which can be distilled into four best practices:

Languages: To reach 80% of the world's Internet users, you must support at least 10 languages. The best Web sites support many more.

Localization: Not only is depth of localized content essential to success, but so is the localization of elements such as search engines, promotions, icons and photos.

Global navigation: Users must be able to find their local Web sites even if they don't speak English. Options include using country domain names (like .fr for France); a global gateway, which is essentially an entry page that enables users to choose their locale via a map, pull-down menu or other technique; a pull-down language or country menu on the home page; or geolocation technology, which allows a site to detect where a user's IP address comes from and then direct him to the most appropriate site.

Global consistency: Global design templates help support your global brand while enabling regional flexibility.

So, a big part of globalizing your Web site is about making sure you can efficiently and effectively localize it, especially when you find that you need to support 100 or more local Web sites, Yunker points out. One way to ease the pain, he says, is to develop Web templates that accommodate both global consistency and local flexibility.

In fact, when FedEx revamped its Web site, the company designed a template enabling all country pages to have consistent navigational elements and designated areas for regional content. For instance, fields for shipping, tracking and account management appear across the top of the page for each country, but space elsewhere on the page is devoted to features or news items relevant to each locale.

"We put those decisions into local hands, because they know more than we would about local issues," Schultz says.

This also frees local offices to add design elements that their cultures expect. For instance, Bolen says, European Web sites tend to use brighter and bolder colors than U.S. sites do.

And many Asian cultures expect a higher density of information on the home page than U.S. home pages might offer, notes Ron Rogowski, an analyst at Forrester Research Inc. in Cambridge, Mass. "You need to trust the local marketing folks to know about those differences and then allow them to design for those," he says.

Novartis is currently revamping its Web site using a global template for all 150 of its country Web sites. The template ensures that certain areas of the site feature a consistent color scheme and layout, as well as certain core messages. But there's also room for each country to use color, images and content that make sense for them, says Kiamos Shah. For instance, when the U.K. passed legislation to ban smoking in public places, Novartis' U.K. site emphasized a "stop smoking" campaign.

The company's template is purposefully flexible so it can accommodate different styles of navigation. For instance, in the Middle East, people tend to scan from right to left rather than left to right, as people do in the U.S. "That's the part that most IT organizations struggle with — having a framework that can be tweaked for different cultures," Kiamos Shah says.

Novartis decided that its first level of navigation would be horizontal, which Kiamos Shah says is culture-neutral, "but I predict there will be more we have to do," she adds.

It's important to account for local differences early in the design process, Schultz says. At FedEx, navigational elements are coded to accommodate differences in word length among languages (the Czech word for *track* is 15 letters, for example). So rather than having to constantly adjust field lengths after the fact, developers put rules in the code base that do that automatically.

Bolen points out that German words tend to be about 30% longer than Eng-

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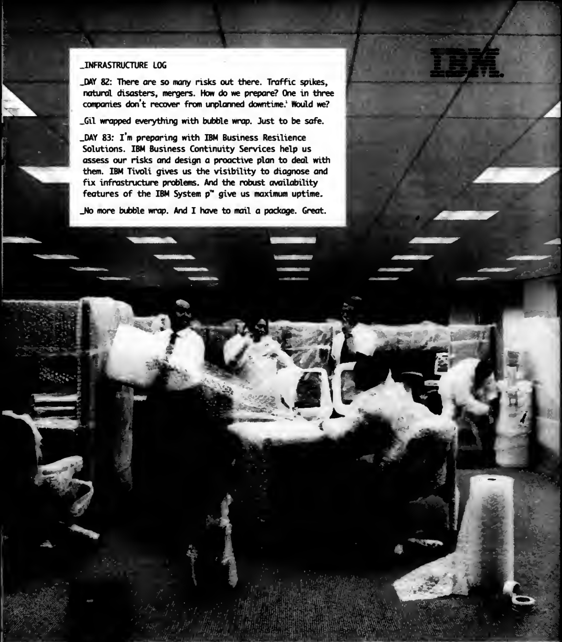

_INFRASTRUCTURE LOG

_DAY 82: There are so many risks out there. Traffic spikes, natural disasters, mergers. How do we prepare? One in three companies don't recover from unplanned downtime.[1] Would we?

_Gil wrapped everything with bubble wrap. Just to be safe.

_DAY 83: I'm preparing with IBM Business Resilience Solutions. IBM Business Continuity Services help us assess our risks and design a proactive plan to deal with them. IBM Tivoli gives us the visibility to diagnose and fix infrastructure problems. And the robust availability features of the IBM System p™ give us maximum uptime.

_No more bubble wrap. And I have to mail a package. Great.

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Continued from page 30

lish words, while Japanese words are about 30% shorter. So if field widths are hard-coded, you'll constantly be truncating words or shifting to a smaller font unless you find a way to dynamically shape the field. "If you do that early, it's simpler," Bolen says. Otherwise, he notes, you're "six months into the design and having to go back and resize each design element."

Novartis uses adjustable fonts and UTF-8 coding, which can be used to represent any character in the world's writing systems and is backward-compatible with ASCII.

"Roman characters can be smaller, but in iconographic languages like Chinese or Japanese, there's more detail in the character itself, so it has to be larger to read on-screen," Kiamos Shah says. Novartis supports 20 languages, "although we could technically support any language we want because of how the templates are coded," she says.

STRATEGIES AND STANDARDS

Because of the complexities that Web globalization presents, Schultz also recommends standardizing as much as you can. For instance, her group worked closely with the business units to develop what FedEx calls a "core language strategy." That involves deciding which of the 25 languages it supports will get translated first and naming a senior-level sponsor to take responsibility for the language strategy.

"If we know which languages we're developing for, we can easily account for those at the beginning of the development cycle, without supporting four languages in one release and eight different languages in the next," Schultz says.

Novartis also has a core language strategy. At a centralized level, the company translates articles and news into five languages that it releases to countries where those languages are spoken. In addition, each country site also develops its own content in the language that's appropriate for its locale.

FedEx also worked to standardize the file formats used by its Web developers. "Without core standards, you don't have a consistent process, which was causing us extra cycle time when we sent out files for translation," Schultz says.

Global Leaders

Here are the top 10 global Web sites this year, according to Byte Level Research:

1	**Google** (google.com)
2	**Wikipedia** (wikipedia org)
3	**Cisco Systems** (cisco com)
4	**Philips** (philips.com)
5	**Hewlett-Packard** (hp com)
6	**Caterpillar** (cat com)
7	**Volvo** (volvocars.com)
8	**Seagate** (seagate.com)
9	**Microsoft** (microsoft.com)
10	**American Express** (americanexpress.com)

Developing a standard way to manage the translation process is also crucial, Schultz says. Unfortunately, because this area is young and evolving, it can be complicated, Yunker says. Some companies simply use e-mail to exchange HTML or XML files with translation providers, while others choose a more automated approach, integrating their content management systems with globalization management software (GMS), which automates and manages the translation workflow between the company and the translation provider.

Companies can either purchase GMS software or find a translation provider that will host the software. Vendors of GMS products include Lionbridge, SDL PLC and Idiom Technologies Inc.

Increasingly popular, says Yunker, are systems or providers that keep previously translated content in a translation memory. That cuts costs and increases consistency. "Over time, the memory strings build and build and become quite valuable," Yunker says.

FedEx implemented globalization management software with translation memory and a glossary. It began by working with more than 28 regional translation providers, but over time it reduced that number to two primary providers, plus a handful of regional translators. FedEx continues to work with native speakers to review content for local nuances and tone.

Having a translation memory, Schultz says, keeps costs down and quickens redesign efforts. Without it, she adds, the latest redesign would have taken a year to complete rather than the four or five months it actually required.

A DIFFERENT APPROACH

The Well Project Inc., a not-for-profit corporation that advocates for and educates women with HIV/AIDS, chose to outsource most of its translation process to Lionbridge when it realized that 30% of its Web users were outside the U.S.

The Well Project has a small staff, but it needed to ensure that it could provide content in other languages that was as relevant and as up to date as its English content, says Chief Operating Officer Richard Averitt. Its first target language was Spanish for the U.S. market, but it plans to roll out a site in French for West Africa and another in Spanish for Mexico, eventually supporting 20 to 30 locales.

Averitt has integrated the organization's Documentum content management system with Lionbridge's Web-services-based system, which handles all the translation processes, including translation memory. "Their job is not to translate word for word but to take the fundamental meaning of the fact sheet and translate it with all its cultural sensitivity and relevance," Averitt says.

He's happy with the results. When he hired a third-party HIV specialist who speaks Spanish to do a last review of everything Lionbridge translated, there were only a few tweaks to make.

As globalization hits every industry and affects companies big and small, anyone with a Web site will likely need to determine an efficient way of providing properly translated, nuanced and updated content while maintaining global consistency. And IT has a key role to play in this endeavor.

"It's a matter of figuring out how you can serve all those regional masters from a look-and-feel and design perspective without developing solutions for each area," Schultz says. "Because you can't afford to do that." ■

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Continued from page 30

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3	[redacted]
4	[redacted]
5	[redacted]
6	[redacted]
7	[redacted]
8	[redacted]
9	[redacted]
10	[redacted]

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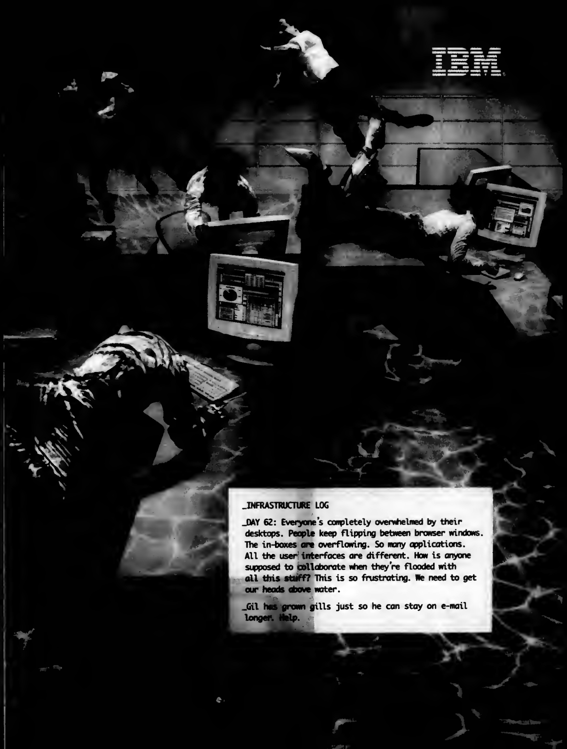

_INFRASTRUCTURE LOG

_DAY 62: Everyone's completely overwhelmed by their desktops. People keep flipping between browser windows. The in-boxes are overflowing. So many applications. All the user interfaces are different. How is anyone supposed to collaborate when they're flooded with all this stuff? This is so frustrating. We need to get our heads above water.

_Gil has grown gills just so he can stay on e-mail longer. Help.

Portal Panacea

In a first-of-its-kind project, health care data is made available to Denmark's 5.3 million residents. By Mary K. Pratt

ENMARK, LIKE most countries, faced a serious health-related quandary: how to deliver efficient, effective and affordable care at a time of escalating costs and increased demand for services.

But unlike many others, Denmark harnessed IT to create a national health portal to help drive improvements in its health care system. This portal, called Sundhed.dk (*sundhed* means "health"), has increased communication among doctors and between doctors and patients, increased collaboration among health care providers, boosted efficiencies and even improved the quality of care.

The Danish National e-Health Portal is attracting attention from around the globe, thanks to its innovation and success. It's also the 2007 winner in the health care category in *Computerworld*'s annual Honors Program.

"There are very few regions or countries of the world that have done anything like what Denmark has done. They're all talking about it, how nice it would be to have something like this," says Jonathan Edwards, a London-based analyst at Gartner Inc.

The idea of a portal isn't unique to Danish health officials. Businesses and other institutions were already using them while Sundhed.dk was still in its infancy in the early 2000s.

In fact, Dr. Finn Klamer, who championed the idea of Sundhed.dk from the start, says he saw early on that commercial portals were successfully reaching health care consumers. And based on his own experience of using technology to automate parts of his general practice, he also saw how IT could create efficiencies in health care.

But Klamer says he didn't want to mimic the commercial sites that promoted specific products; he saw the need for something broader and much more interactive.

"We needed a concept that would give us better coordination, better quality and a better patient flow, as seen by the professionals and the patients also. And it was important that the portal could also be a link between the professional partners, exchanging ideas about the patients," he explains.

Many people shared those goals and came together to build Sundhed.dk, says Morten Elbaek Petersen, CEO of the Danish National e-Health Portal. The key players in the country's health care system — including regional

Continued on page 36

[ ]

Government Of Denmark

[illegible]

The Danish National e-Health Portal, or Sundhed.dk, allows 150,000 health care professionals and all 5.3 million Danish residents to access general and detailed personal health care information online.

Bent Hansen, current chairman of the Owners' Board (a group of appointed representatives from the various stakeholders in the country's public health services); Kristian Ebbensgaard, former chairman of the Owners' Board; Lone Christiansen, director of the Danish Regions; Vagn Nielsen, department head at the Ministry of the Interior and Health; Morten Elbaek Petersen, CEO of Sundhed.dk; Dr. Finn Klamer, medical adviser at Sundhed.dk; and Torben Hagen Britze, the ongoing lead IT development person from Acure, part of IBM Denmark A/S in Copenhagen.

The agency has about 20 employees and annually receives €4.5 million from supporting organizations (primarily Denmark's regional governments) to pay for operations. It works with Acure to continually improve Sundhed.dk, using about €1 million annually to support development.

Coordination of health care services has improved. There have also been cost savings; for example, it's no longer necessary to run print advertisements for jobs, since they can now be posted in the central online portal.

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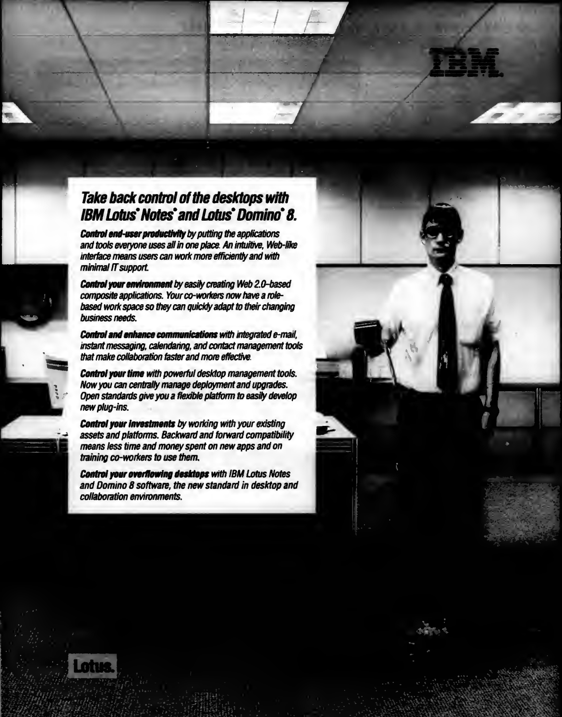

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Continued from page 34

government officials, the pharmacists association, general practitioners, hospitals and their CIOs — created the Danish National e-Health Portal and in May 2002 hired Petersen to run it.

"There was room to do something completely different, room to use the Internet in a new way that brought everybody together," says Morten Godiksen, public relations manager at Sundhed.dk.

The new agency received €7.5 million from those partners to create and implement Sundhed.dk. Petersen says the agency in 2003 awarded the contract to build the portal to Acure, part of IBM Denmark A/S in Copenhagen, because the company understood the need for integration and a platform that could easily be built upon.

The portal is a J2EE environment built on Java and Enterprise JavaBeans, explains Torben Hagen Britze, the ongoing lead IT development person from Acure. Other technology choices include IBM products such as Tivoli Access Manager, WebSphere Portal Server, WebSphere Application Server and Database II, and Interwoven Inc.'s TeamSite for content management.

The first of the project's three phases went live December 2003, when Sundhed.dk launched as an information portal. The next two phases, delivered in 2004, first supported collaboration and then full communication along with the ability to monitor and share patients' online health records.

The Danish National e-Health Portal extended its contract with Acure to develop and improve the site.

Denmark had some advantages when officials first started work on Sundhed.dk. Some 85% of the country's health care services are publicly financed, making for a very homogeneous system, Petersen says. And every Danish citizen already had a personal identification number that's used for various public functions, such as paying taxes, checking out library books and labeling health care records.

THE DANISH HEALTH CARE SYSTEM has seen substantial returns – some quantifiable, some anecdotal – since Sundhed.dk was first implemented in 2003. They include the following:

- **Improvements in how patients with chronic conditions are able to manage their own health.** For example, a 2006 questionnaire showed that more than 90% of diabetes patients use the Dia-Log function to follow the development of their disease and make appropriate self-care decisions.
- **Better doctor-patient interactions.** About 80% of the health care professionals surveyed say direct patient access means more one-on-one discussions about problems, increased responsibility, improved self-care and higher patient satisfaction.
- **Savings from automation.** For example, doctors and pharmacies switched from manually handling prescriptions to using the electronic system, cutting costs by €12 million annually.
- **Easier access to important and sometimes lifesaving information and options.** This is demonstrated by a year-over-year 48% increase in those signing up to be organ donors.

– MARY K. PRATT

Moreover, many of the IT building blocks needed to make Sundhed.dk work were already in place at the various medical practices and institutions that serve patients. Godiksen points out that many in the health care sector already had Web sites, medical databases and electronic patient records; the only thing lacking was the coordination to put them all together.

"The Danish portal is really only possible because they had implemented those other things," Edwards says.

POCKETS OF RESISTANCE

That's not to suggest that the Danes didn't encounter obstacles.

Britze says the need to build up information in the months before the portal's debut put a strain on contributing institutions. However, an enhancement in the content management system that allowed editors to preview content helped ease that pressure.

And, Britze says, the standard software available in 2003 couldn't support the portal's requirements for high availability as well as some of its specific functions — a challenge met by working with software vendors to develop the needed functionalities.

Moreover, some general practitioners, who provide most of the health care services in Denmark, didn't want to be part of the project, Petersen says. Others didn't have the supporting technology they needed in their practices — and they resisted getting it.

"When you get IT, it takes time to learn it. And [doctors are] there to help patients, not for learning IT," he says.

Citizens have also been slow to obtain digital signatures, which work with the national ID numbers to allow secure access to personal information. "I'm not sure if everyone has felt the motivation or understands the benefits of it," Godiksen says.

Good public relations helped solve those problems. "It was due to good stories that we turned around that struggle," Petersen says, adding that backing from the general practitioners' union helped win support as well.

Today, Sundhed.dk logs about 250,000 unique visitors per month, Godiksen says. Visitors can access not only general health information, but also patient-specific material, such as details about their prescriptions, doctor's instructions and upcoming appointments.

Godiksen says he sees a future that allows for more online interaction — perhaps chat rooms where doctors can answer questions in real time.

But Godiksen says the more immediate goal is to simply increase the portal's use. He says there are about 5 million people in Denmark, including 150,000 health care professionals, and it's clear that more people use the health care system than are using the portal to help manage their care.

"Sundhed.dk is the interface to every health care organization in Denmark," Britze says, "and the potential is huge." ■

Pratt *is a* Computerworld *contributing writer in Waltham, Mass. Contact her at marykpratt@verizon.net.*

_INFRASTRUCTURE LOG

_DAY 74: This is so complicated. We're spending all our time and money managing our boxes. Gil says he has a big idea for how to better manage our x86 environment.

_Gil's big idea: sheepdogs...says they work for biscuits.

_DAY 75: I just wrangled up the scalable IBM System x3950. Its IBM X3 Architecture and IBM Systems Director make it one of the most reliable and economical platforms for x86-based virtualization. Managing our servers and storage is a snap. And with Dual-Core Intel® Xeon® processors, the System x® servers will run lightning fast.

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GETTING TO THE CORE

Intel's CTO says **multicore and many-core machines** are the only way to keep Moore's Law on track. But **programming for parallel processing** is a whole new ballgame.

JUSTIN R. RATTNER

TITLE: Senior fellow, director of the corporate technology group and chief technology officer

COMPANY: Intel Corp.

For much of his 34 years at Intel Corp., **Justin R. Rattner** *has been a pioneer in parallel and distributed processing. His early ideas didn't catch on in the market, but the time has come for them now, he recently told* Computerworld*'s Gary Anthes.*

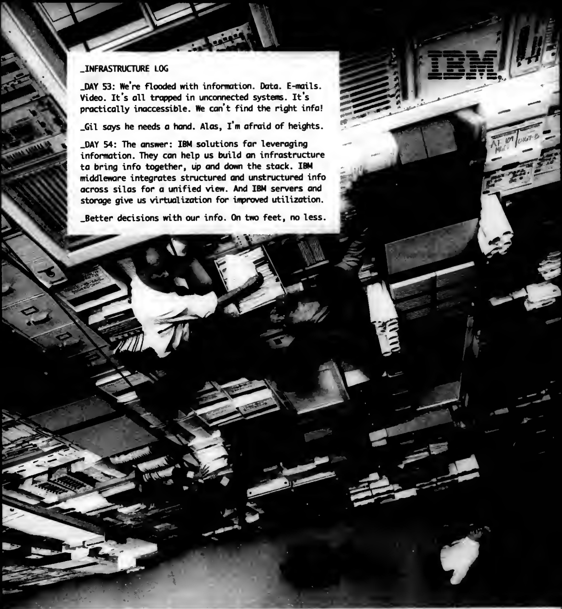
Are we at the end of the line for microprocessor clock speeds? We'll see modest growth, 5% to 10% per generation. Power issues are so severe that there won't be any radical jumps. If you get a 2% improvement in clock speed but at a 5% increase in power consumption, that's not a favorable trade-off.

I keep reassuring Bill Gates that there is no magic transistor that is suddenly going to solve his problem, despite his strong desire for such a development.

What exactly is Gates worried about? First, a steadily rising single-thread performance would benefit the entire existing base of software. Second, multicore and, later, many-core processors require a new generation of programming tools. Given the rudimentary state of parallel software, the investment across the entire computing industry will be very large. Third, the tools have to be applied by people with the skills needed to use them effectively. Retraining existing programmers and educating a new generation of developers coming out of school is another formidable challenge. It will take years, if not decades, to reach the point where virtually all programmers assume the default programming model is parallel rather than serial.

So the only way to keep Moore's Law going is to add more computing cores to a microprocessor chip? The only way forward in terms of performance — but we also think in terms of power — is to go to multicores. Multicores put us back on the historical trajectory of Moore's Law. We can directly apply the increase in transistors to core count — if you are willing to suspend disbe-

Continued on page 40



_INFRASTRUCTURE LOG

_DAY 53: We're flooded with information. Data. E-mails. Video. It's all trapped in unconnected systems. It's practically inaccessible. We can't find the right info!

_Gil says he needs a hand. Alas, I'm afraid of heights.

_DAY 54: The answer: IBM solutions for leveraging information. They can help us build an infrastructure to bring info together, up and down the stack. IBM middleware integrates structured and unstructured info across silos for a unified view. And IBM servers and storage give us virtualization for improved utilization.

_Better decisions with our info. On two feet, no less.

Information Management

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Continued from page 38

lief for a moment that you can actually get all those cores working together.

How many cores might we see on a chip in five years? We have been talking about terascale for the past couple of years, and we are demonstrating an 80-core [processor chip]. Our [future] product is Larrabee. It's not 80 cores; we can do things like that in research because we don't care how much it costs. Our hope is that that will stimulate software developers to bring terascale applications to market. We are talking about early production [of Larrabee] in 2009.

How many cores will Larrabee have? I can't comment on details about the first product. It's sufficient to say "more than 10," which is what we define as the boundary between multicore and many-core. It's better to think of it as a scalable architecture family, with varying numbers of cores depending on the application.

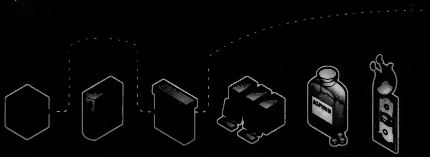
In five years, will virtually all new software be written for multiple processors? Yes, but people will not go back and rewrite a lot of existing software. I don't think word processors need 16 cores grinding away on them.

So, will we need a new kind of programmer then? Yes, it's a whole new ballgame. We have been trying to get the attention of the academic community on this problem. They got all fired up about parallel programming about 20 years ago. Everywhere you went, people were working on parallel programming, but it never came down. It remained in the high-performance computing space.

Why are things different now? Now, every computer you buy has two or four or eight or maybe a lot more cores. Twenty years ago, the market for [multiprocessor] machines wasn't big enough to support the kinds of R&D to really move the ball down the field. It's a disappointment, but not a surprise, that not much happened over 20 years. Now, the financial incentive is there, and the R&D budgets are there. We know we can't sell hundreds of millions of processors that people can't program. But we are on the flat part of the learning curve right now.

"I keep reassuring Bill Gates that there is no magic transistor that is suddenly going to solve his problem," says Intel CTO

What are the academic researchers doing now? [Until recently,] they weren't even teaching parallel programming.



at&t

You could get a Ph.D. in computer science and never write a parallel program. But now hundreds of universities worldwide are reintroducing parallel programming into their curricula. Intel and other companies are working on funding programs to reignite academic research in parallel programming and architectures.

We went out to the universities and talked about these plans. They said, "This is great, because we weren't talking about this." It's sort of like the elephant in the room. We are all buying dual-core this and quad-core that, but no one was saying, "We really don't have much technology to do all this stuff."

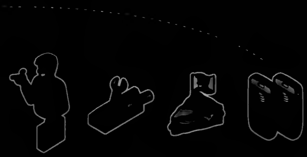
What sort of research are you doing internally? Take a look at our CT — a dialect of C for "throughput" computing. It raises the level of abstraction so programmers are not dealing with parallelism in an explicit fashion. You can think very naturally about data structures, and it just has a huge impact on productivity. It lets you express data parallelism very easily. What's different about it is that it deals with all kinds of data structures in an almost seamless way.

Can scheduling those parallel threads be done just in software? If you rely on the operating system to schedule all those threads, you are probably dead in the water. We've developed an architecture for hardware thread scheduling and done extensive simulation of it to understand the trade-offs and refine the mechanism. It's too early to say which product will have it and when it will reach the market.

But aren't there many applications that are inherently not suited to parallel processing? We have faced this problem internally. There is this unfounded belief in Amdahl's Law [which limits the speed that can be gained by adding more processors]. It's, "I've got this program, and it doesn't get faster after four cores. You put eight cores on it, and it still runs at the same speed." I hear that all the time. But then we take a look at it and we go, "You know, you didn't really think about it." But there may be another way where you don't get as much performance in the two-to-four-core range, but it keeps scaling, so you take a slower initial position, but you can scale to 16 or 32 processors. It's a matter of clever algorithms, different decomposition of the problem and using better tools that make decisions on the fly for the programmer.

What's the future of spintronics, in which information is based on the spin of an electron rather than on its charge? Charge-based electronics is going to run out of steam. The memory guys have already hit that point, basically. They can't make those memory cells any smaller. So researchers are looking at quantum effects like spin, and some early results aren't bad. Spin has some nice things about it, both in terms of performance and power.

Could we have working computers based on spin in 10 years? Yes, but I wouldn't be more aggressive than that. We'd want to make the transition seamlessly. We wouldn't want to say, "OK, there will be no new microprocessors for five years while we figure out spintronics." ■



palm

■ SECURITY MANAGER'S JOURNAL | C.J. KELLY

A Tough Time to Lose a Staffer

There's a state **hiring freeze,** and IT is already **short-staffed.** But is there ever a **good time** for a resignation?

I'M CRUNCHED for time, we could use a few more hands in this state agency's IT department, and the state has imposed a hiring freeze. Could there be a worse time to find a resignation letter on my desk? Well, I knew it was coming, and I understood why. I am sad to see this employee go, but I gave her an excellent reference.

Resignations always make me review what I could have done differently to keep employees happy. In the public sector, my hands have been tied in many areas, but wherever possible, I've demanded change — and I've ruffled a few feathers in the process. Change was the norm when I worked in the private sector, but in a government agency, it's resented.

But I couldn't come in here and be happy with the status quo. I was charged with securing systems, so I insisted on implementing various security technologies. We now log network activity, grant access on a need-to-know basis, document our processes and use a continuous self-audit process. I've rocked the boat, and it's still rocking.

Through it all, we have been short-staffed, but the state's budget crisis is now so severe that we can't continue trying to do more with less. Working harder for longer hours can't be sustained in the long term, and eventually you have to face the facts: You can only do less with less. Fortunately, I have a mature and professional manager. His advice was clear: Cut back, don't work longer hours, don't try to do everything on the to-do list, learn to say no. If the governor mandates budget cuts and we can't hire people, that translates into work not being done, not us trying to compensate.

In other words, I need to cut down the project list, put projects on hold and reallocate the workload. And I need to pull every string I can to get this soon-to-be-vacated position filled in the middle of a hiring freeze.

■ Resignations always make me review what I could have done differently.

As much as I see the wisdom of my boss's advice, it's still hard to get into that mind-set, even after all my years working for the government. I still want to make it all work, even if it seems impossible. But I have to remind myself that there's no reward for that kind of behavior here — no bonuses or stock options, no awards for outstanding achievement.

FIRST THINGS FIRST

Of course, I haven't had a lot of time to reflect. There are always things to do, and right now my top priority is to make sure everything goes smoothly as my employee prepares to leave. I need to make sure I get a complete brain dump from her. Fortunately, we've been documenting the environment for the past two years, so we'll only need to update those documents. Next, I have to ensure that the exit doesn't cause a security risk.

Trouble Ticket

AT ISSUE: The department has been short-staffed for some time, and now a senior person is leaving.

ACTION PLAN: Accept the fact that it's impossible to do more with less.

It's always a good practice to make sure passwords get changed when someone leaves, but it's really essential when it's a senior person on a tiny staff. There aren't enough of us to work out a separation of duties, so a single person often holds the keys to the kingdom.

Then there's the trust issue. Again, this becomes more of a burden with a small staff. In a large corporation, it's not unusual for a senior technical person to leave immediately but still be paid for the two weeks of his notice, but we can't afford to pay someone who isn't here anymore. So I have to make a determination: Can I trust this person to keep doing the right thing until she leaves us? She could inflict untold damage on us if she were disgruntled in any way.

I'm lucky in this case. I am fully confident of this employee's dedication and trustworthiness. She may not have an easy time over her remaining two weeks, but I know she would never sabotage us.

JOIN IN
To join the discussion about security, go to **computerworld.com/blogs/security.**

But in spite of the level of trust I feel, I know in my heart of hearts that security is not about feelings. ■ *This week's journal is written by a real security manager,* **"C.J. Kelly,"** *whose name and employer have been disguised for obvious reasons. Contact her at mscjkelly@yahoo.com.*

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■ OPINION

Bart Perkins

Don't Be a CHUMP

JOB DESCRIPTIONS for CIOs vary widely. Some companies recognize that day-to-day IT activities often make it difficult to undertake long-term planning. They create a corporate CIO position for someone whose sole purpose will be to develop and communicate long-term IT vision and strategy. These CIOs have no operational responsibilities (or resources) or infrastructure or applications to deliver. They are given a small staff, a small budget and many dotted-line reporting relationships with divisional information officers (DIO), who manage operational activities in the business units.

Beware! This job is usually designed for failure. It is normally filled by a CHUMP (a CIO hired for undoable management and planning) who is fired and replaced within a few years. Here are some of the reasons why this happens:

■ The CHUMP can't solve problems. CIOs build creditability by solving problems for their customers. With limited resources, CHUMPs are unable to provide new IT capabilities or address complex business problems. As the organization learns that the CIO is unable to help, divisions stop calling, making the CHUMP irrelevant. (Except for CIOs of outsourced organizations, who usually have the outsourcer's staff to solve problems.)

■ Individuals are less likely to support plans that they didn't help develop. Vision and strategy are best developed collaboratively rather than presented and imposed from on high. In large organizations, implementing a new IT strategy requires many people to change their actions. Allowing people to participate in shaping the new strategy improves buy-in and long-term support. But CHUMPs are told to develop a corporatewide IT strategy and "tell" the business units how to comply. The new CHUMP at one global organization wanted to involve DIOs in a collaborative strategy-development process. Given budget constraints and time zone complications, she was told to limit meetings to one per year, making collaborative strategy development nearly impossible and virtually ensuring failure.

■ Beware! This job is usually designed for failure.

■ Multidivision projects are practically impossible. CHUMPs are typically found in organizations that have strong business units and weak central staffs. Although the organization acknowledges that some shared services (enabled by IT) would reduce costs, these efforts typically get bogged down in politics.

One company decided to standardize desktop and communication functions globally. Each business unit was directed to contribute money and staff to this effort, coordinated by the CHUMP. Since the DIOs didn't want the project to succeed, many of the assigned staffers were either incompetent or had other (higher) priorities. The CHUMP's project limped along until it was eventually canceled.

■ The CHUMP is an easy target. Big penalties can result from violations of the Sarbanes-Oxley Act and other regulations, such as records retention, privacy and e-waste mandates. Even if the problem occurs in a business unit, the hunt for the guilty parties frequently starts at the corporate level.

California recently charged a company with failure to properly pay hourly workers for breaks. Since the ruling came down on the company rather than on a specific business unit, the CHUMP spent a lot of time defending himself, even though he had repeatedly warned the affected business units to improve their time accounting in manufacturing. It took several months before responsibility was shifted to the appropriate groups.

■ The CHUMP has little power to reward or punish. Because of their dotted-line reporting relationships, CHUMPs often have little power to affect performance appraisals or compensation. As a result, they are frequently ignored by DIOs.

It's tempting to accept a CIO job that lacks the pressure of day-to-day responsibilities, but you will be trading operational problems for political machinations. Don't accept a job that's largely unworkable and usually doomed. Without sufficient resources and authority, you have nothing to leverage and no real pathway to success. ■

Bart Perkins *is managing partner at Louisville, Ky.-based Leverage Partners Inc., which helps organizations invest well in IT. Contact him at BartPerkins@LeveragePartners.com.*

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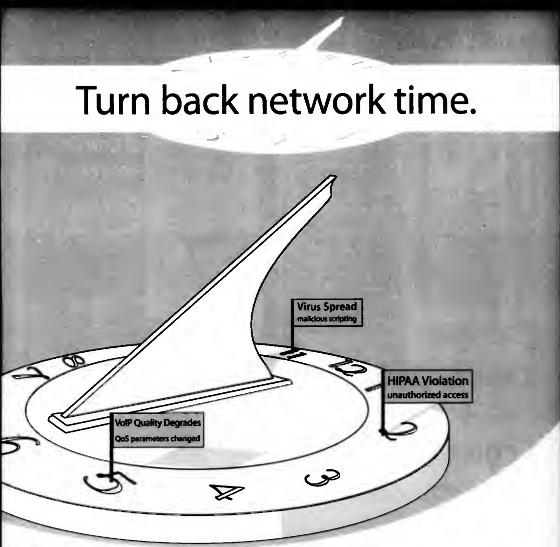

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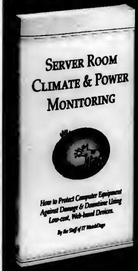
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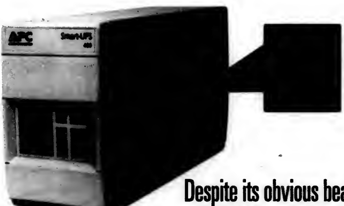

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Career Watch

Time's A-Wastin'

43% Percentage of managers who say their subordinates spend more than 10% of their time on non-work-related activities.

21% Percentage who say they themselves spend more than 10% of their time on non-work-related activities.

SOURCE: NFI RESEARCH GLOBAL SURVEY OF 176 SENIOR EXECUTIVES AND MANAGERS, JUNE 2007

Students Join the Club

The Computing Technology Industry Association has added a student membership category, **IT StudentPro**, to its CompTIA IT Professional program. For just $10 a year, CompTIA IT Pro student members get the following:

- Online information and communication forums to help them get **career guidance** from workers in the industry.
- Access to CompTIA IT Pro **research reports and articles** related to IT careers.
- Opportunities to participate in career development **webinars and conferences**.
- Access to a portal for **industry information**.
- A CompTIA IT Pro Member **newsletter subscription**.

Cheap Work Cell Phone?

SOME EMPLOYEES HAVE ONLY THEMSELVES TO BLAME

Some companies are getting out of the business of outfitting employees with company-issued computers, cell phones and other high-tech gear. Instead, reported *Career Journal* in a story reprinted on *Computerworld.com* ["Office Technology's Next Step: Do-It-Yourself Shopping," July 10], they are giving their workers allowances and telling them to get whatever they feel will help them do their jobs best. If they go high-end, they have to cough up the difference, and if they go cheap, they can pocket the change.

The companies are finding that they spend less money, and employees are more content for having been given a bit of control. Some people raise concerns about compliance and security issues, or even the prospect of employees growing distant from their IT departments. But what seems to be winning the day is the realization that a bit of empowerment can make some tech-savvy workers more productive.

Q&A

Andrew Sears

The IS department chairman at the **University of Maryland, Baltimore County (UMBC)** discusses that school's dramatic uptick in IT students.

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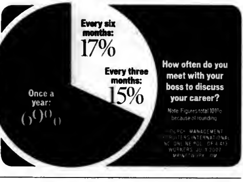
– THOMAS HOFFMAN



How often do you meet with your boss to discuss your career?

Note: Figures total 101% because of rounding

SOURCE: MANAGEMENT RECRUITERS INTERNATIONAL INC. ONLINE POLL OF 4,413 WORKERS, JULY 2007, MRINETWORK.COM

PAGE COMPILED BY JAMIE ECKLE.

Career Watch

Time's A-Wastin'

43% Percentage of managers who say their subordinates spend more than 10% of their time on non-work-related activities.

21% Percentage who say they themselves spend more than 10% of their time on non-work-related activities.

SOURCE: NFI RESEARCH GLOBAL SURVEY OF 176 SENIOR EXECUTIVES AND MANAGERS, JUNE 2007

Students Join the Club

The Computing Technology Industry Association has added a student membership category, IT StudentPro, to its CompTIA IT Professional program. For just $10 a year, CompTIA IT Pro student members get the following:

- Online information and communication forums to help them get career guidance from workers in the industry.
- Access to CompTIA IT Pro research reports and articles related to IT careers.
- Opportunities to participate in career development webinars and conferences.
- Access to a portal for industry information.
- A CompTIA IT Pro Member newsletter subscription.

Cheap Work Cell Phone?

SOME EMPLOYEES HAVE ONLY THEMSELVES TO BLAME

Some companies are getting out of the business of outfitting employees with company-issued computers, cell phones and other high-tech gear. Instead, reported *Career Journal* in a story reprinted on *Computerworld.com* ["Office Technology's Next Step: Do-It-Yourself Shopping," July 10], they are giving their workers allowances and telling them to get whatever they feel will help them do their jobs best. If they go high-end, they have to cough up the difference, and if they go cheap, they can pocket the change.

The companies are finding that they spend less money, and employees are more content for having been given a bit of control. Some people raise concerns about compliance and security issues, or even the prospect of employees growing distant from their IT departments. But what seems to be winning the day is the realization that a bit of empowerment can make some tech-savvy workers more productive.

Q&A

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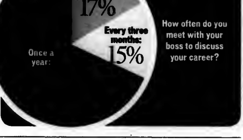

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TRUE TALES OF IT LIFE AS TOLD TO SHARKY

Circular Filing

This company's e-mail system has a 200MB limit for mailboxes – but not for the "deleted items" folder. "More than one person had set up elaborately nested folders in their deleted items where they happily had 5 or 6GB of mail," says a pilot fish tasked with saving space on the mail server. "They had heart attacks when we said we were going to automatically dump anything in there more than two weeks old. We had meetings, conference calls and anguished e-mails all waiting for us the next day. In the end, we had to give classes in how to set up actual archiving on the file server rather than their un-backed-up PC drives. Then we had to manually move their data for them before we could finally empty the trash. It took weeks – weeks when almost every day their e-mail system would run out of space again and start rejecting inbound mail."

Back to Square One

Big insurance company is trying to get a handle on managing a large number of projects, so it buys project management software. But the tool needs added functionality to satisfy everyone. "Project manager is assigned to this project and starts meeting with IT to define what needs to be done," says a pilot fish on the scene. "IT director asks PM for the project plan. PM looks puzzled at the request. IT director explains that since project management software is a project, there should be a project plan. A week later, they meet again, and this time, PM is ready with the project plan. IT director asks when she'll see the weekly status report for the project. PM looks puzzled again and asks why she needs to create a status report. IT director explains that in order to manage the project, they need to keep track of the progress of the project. I don't think the software is going to help. . . ."

Just Like Mom Used to Calculate

Pilot fish is installing software on a PC in this manufacturing plant when he notices a heavy rag on top of the monitor, covering the cooling slits. "Thinking I should remove it so it doesn't overheat, I lifted the rag," fish says. "To my surprise, under the rag was a chicken breast and another piece of food in baggies. I put the rag back down and asked the employee I was helping what was up with that. He said some of the guys heat their lunch that way, though he didn't. I asked what was wrong with the microwave in the break room. He said the PC was closer and on their way out the door. Umm-mmm! Nothing tastes as good as chicken warmed by the radiation coming off a CRT!"

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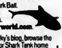

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■ COMPANIES IN THIS ISSUE

Page number refers to page on which story begins. Company names can also be searched at computerworld.com

Acceleration Software International Corp.	8
Accendor Research Inc.	26
Acure	34
Adobe Systems Inc.	10
Advanced Micro Devices Inc.	8
American Express Co.	32
Ascent Corp.	10
Author-it Software Corp.	20
Business Objects SA	18
Byte Level Research LLC	29, 30, 32
Carnegie Mellon University	12
Caterpillar Inc.	32
Chrysler LLC	8
Cisco Systems Inc.	32
Cognos Inc.	18
Continuity Software Inc.	20
Danish National e-Health Portal	34
Datawatch Corp.	20
DeKalb Memorial Hospital	6
Dell Inc.	8
EMC Corp.	4
Everdream Corp.	8
FBI	16
FedEx Corp.	29
Forrester Research Inc.	16, 30
Gartner Inc.	6, 34
General Motors Corp.	12
Google Inc.	30, 32
Hewlett-Packard Co.	6, 32
IBM Denmark A/S	34, 36
IBM	10, 18
Idiom Technologies Inc.	32
Intel Corp.	6, 38
International Association of Science and Technology for Development	6
Interwoven Inc.	36
Jetstar Airways Pty.	10
Leverage Partners Inc.	44
Lionbridge Technologies Inc.	30
Management Recruiters International Inc.	46
Microsoft Corp.	6, 8, 10, 22, 32
Mozilla Corp.	8
Mueller Inc.	18
NASCAR	8
nCircle Network Security Inc.	6
NFI Research	48
Novartis International AG	30
NPI Inc.	12
Nucleus Research Inc.	18
Oracle Corp.	8, 18
Owners' Board	34
Philips Electronics NV	32
Princeton University	16
Quantas Airways Ltd.	10
Quinsigamond Community College	4
Red Hat Inc.	8
SAP AG	18
SDL PLC	32
Seagate Technology LLC	32
Society for Technical Communication	20
Software Engineering Institute	12
Stuart Maue Co.	8
Symantec Corp.	20
The Computing Technology Industry Association	48
The Open Group	52
The Well Project Inc.	32
TravelSky Technology Ltd.	10
U.S. Census Bureau	6
U.S. Department of Defense	12
U.S. Government Accountability Office	16
Unisys Corp.	10
University of Maryland, Baltimore County	48
Ventana Research Inc.	18
Volvo Car Corp.	32
Wikipedia	32
Yahoo Inc.	8

American Power Conversion	47
AT&T Wireless	3
Diskeeper	8
dtSearch	48
Fujitsu Computer Systems Corporation	27
Hewlett-Packard Blade	C4
Hewlett-Packard ProLiant	23
IBM Express Seller	7
IBM IT Campaign	31, 33, 35, 37, 39
InterSystems Caché	13
Invest in Ontario	21
IT WatchDogs	48
Microsoft Forefront	C2-1
Microsoft Linux	25
Microsoft Unified Communication	14-15
NEC	17
Network Instruments	45
Palm	40-41
SaaSCon 2008	43
Samsung	9
SAS	19

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■ FRANKLY SPEAKING

Frank Hayes

Real Architects

WANT TO BE AN ARCHITECT?

I don't mean an "IT architect," though that's surely an appealing career target. Last week, The Open Group announced a new level in its IT architect certification program: Distinguished Certified IT Architect. It requires proving you have executive-level IT vision, governance expertise, and communication and leadership skills. That's a VP-level job, typically reporting to the CIO.

Nice work if you can get it.

In IT, we love titles and metaphors that come from the construction world. Of course, many of our "software engineers" don't know the first thing about engineering, and the quality of IT infrastructure that we casually call "plumbing" would make a union plumber cringe.

And architects? In IT, we think that means people who design systems.

When it comes to putting up buildings, yes, designing is part of the job. But a real architect — the professional who's licensed by a state to use that title — does a lot more than that.

His work begins when a client wants to build something. The architect's first task: getting hired for the job. That means selling the client on what the architect can do, and often pitching ideas for the design of the building.

Once he's hired, the real-world architect next discusses budgets, schedules and what the building will be used for. Those three interact, and a big part of the architect's job at this stage is listening to the client — and helping the client understand what things cost, how long construction takes and what's practical.

Then the first plans are drawn up. And the client asks for changes. And the architect explains how the changes will affect the budget and schedule. Changes are made. And more changes. And still more changes. Budgets are revised. Schedules are rejiggered. Plans are redrawn.

(Scope creep? It happens, but not often. More likely, ambitious dreams get scaled back, fancy fixtures are dumped in favor of plain ones, and the budget gets tighter, not looser.)

■ How much does our notion of an IT architect resemble the real thing? Not much. But maybe it should.

Next, the plans are sent to an engineering firm, which converts floor plans into structural designs and plans for wiring, pipes and ducts. It's all checked to make sure it meets functional requirements and building codes.

Then bidding starts. Shepherding that is part of the architect's job, too. His cost estimates will collide with the bids of the contractors who will actually do the work. If the bids bust the budget, the client may need to make more changes. That means new plans, engineering changes and new bids.

And once the client has finally accepted the plans and the bids, the architect oversees construction. Yes, as in hard hat and muddy boots. And yes, plans get changed, and the budget and schedule are adjusted yet again as the blueprints meet construction realities.

And when the building is finally complete, there's one piece left for the architect: liability. If anything is wrong with the building — no matter who actually fouled up — the architect is legally responsible. If the building falls down, it's the architect who's sued.

Full disclosure: My father was an architect, so I grew up with this process — bid openings, construction site visits, the whole works.

How much does our notion of an IT architect resemble the real thing? Not much.

But maybe it should.

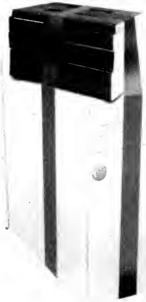
Design and high-level plans are important. But so is all the negotiation, the estimation and communication, the readjusting and the selling to clients, the boots-in-the-mud supervision and especially the ultimate responsibility for a project.

We're not good at all those things. We need to be — for the sake of IT's reputation and our businesses' success.

More "IT architects"? Sure, we can find a place for them.

More people who do for IT what architects do for buildings? That's something we could *really* use. ■

Frank Hayes *is* Computerworld*'s senior news columnist. Contact him at frank_hayes@computerworld.com.*



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